

We claim:

1. A method of manufacturing a sponge device, comprising:
providing a form having a plurality of cavities therein;
introducing a curable liquid sponge forming material into said cavities of said form;
placing a handle partially into said material in a plurality of said cavities before said material is fully cured;
heating said form and said material therein to cure said material, wherein said material forms a sponge around part of said handle to form a plurality said devices; and
removing said devices from said form.

2. The method of claim 1, further comprising:

rinsing said sponge in an aqueous solution.

3. The method of claim 2, further comprising:

rinsing said sponge in a solution comprised of glycerin.

4. The method of claim 1, further comprising:

drying said sponge at about 110 to 130°F with about 5-15% humidity while using a vacuum to remove moisture from said object.

5. A method as set forth in claim 2, wherein is provided a centrifuge and said rinsing step is carried out in said centrifuge and includes spinning said devices to remove excess rinsing solution.

6. A method as set forth in claim 5 wherein the step of rinsing said sponge in said aqueous solution is carried out in said centrifuge and includes spinning said device to removes excess aqueous solution.
7. A method as set forth in claim 5 wherein said drying step is carried out in said centrifuge.
8. A method as set forth in claim 7 wherein said drying step includes rotating said centrifuge in first one direction and then in the opposite direction.
9. The method of claim 1, wherein said sponge forming material is PVA that has been subjected to a frothing agent.
10. The method of claim 9, wherein said frothing agent is air.
11. The method of claim 1, wherein said cavities each have a bottom and a top edge and wherein said sponge forming material is introduced into said cavities from the bottom up.
12. The method of claim 1, wherein said cavities have indentations therein which are transferred to said sponge upon curing.
13. The method of claim 1, wherein said frothing agent is an inert gas.
14. The method of claim 3, further comprising:
providing a runner for joining a plurality of said handles together during all of said steps commencing with said placing step.
15. The method of claim 14, further comprising:
separating said devices from said runner; and
polishing said handles of said devices.

16. The method of claim 1, further comprising:
providing a removable liner; and
lining said form with said liner before introducing said curable liquid material.
17. The method of claim 1, further comprising:
compressing an end portion of said sponge to an extent sufficient to increase the absorbency of said end portion in comparison to other portions of the sponge.
18. The method of claim 1, further comprising:
compressing said sponge.
19. The product of the process of claim 1.
20. The product of the process of claim 4.
21. A carrier assembly for use in a casting process wherein a plurality of devices are formed simultaneously, each device having a preformed object of a first dimension and a cast portion of a larger dimension, said assembly comprising:
a plurality of pairs of plates disposed in substantially parallel planes;
each pair of plates receiving and holding a plurality of objects therebetween which objects form a portion of the devices to be made in said casting process;
a support for holding said plates in substantially planar alignment while accommodating linear movement of said plates in a direction perpendicular to said planes; and
a spring-biased retainer for holding said plates together to retain said objects while accommodating said linear said linear movement to permit a device having a

dimension exceeding the dimension of each of said objects to be removed from between a pair of said plates.

22. The assembly of claim 21, wherein said plates include structure for supporting and placing said objects when they are received therebetween.

23. The assembly of claim 21, wherein said preformed object comprises a handle for insertion into said cast portion.

24. The assembly of claim 22, wherein said cast portion comprises a sponge having a dimension which is at least three times larger than said first dimension.

25. The assembly of claim 21, wherein each of said plates has a pair of openings, said support comprises a pair of tubular members received by said openings, and said retainer comprises a spring received in each of said tubular members and a cap coupled with said spring which engages the end of said tubular member.

26. The assembly of claim 21, further comprising:
a chase having a bottom and at least two sides;
said two sides of said chase adapted to support said plurality of plates; and
a rinsing form having a plurality of bottomless cavities for receiving said cast portion, said form adapted to be received on said chase.

27. A centrifuge for use in a casting process wherein a plurality of devices are formed simultaneously, each device comprising a preformed handle and a cast sponge section, a plurality of said devices being held by a carrier assembly, said centrifuge comprising:

a housing mounted for rotation about a horizontal axis;

an access door movable between open and closed positions for providing access to the interior of said housing;

structure for holding said carrier assembly;

pipng structure for introducing a liquid into said housing; and

a prime mover for rotating said housing.

28. A centrifuge as set forth in claim 27, wherein is included a drain for removing liquid from said housing.

29. A centrifuge as set forth in claim 28, wherein is included inlet and outlet ducts for circulating heat through said housing.

30. A centrifuge as set forth in claim 27, wherein said prime mover rotates said housing in two opposite directions.

31. An assembly for use in a casting process wherein a plurality of devices are formed simultaneously, each device having a preformed object of a first dimension and a cast portion of a larger dimension, said assembly comprising:

means for holding a plurality of said preformed objects in predetermined positions;

a chase formed of heat conductive material having a bottom and at least two sides;

said two sides of said chase adapted to support said holding means; and

a form comprised of silicone having a plurality of cavities for receiving a casting material, said form adapted to be received on said chase.

32. The assembly of claim 31, wherein said silicone comprises room temperature vulcanizing silicone.
33. The assembly of claim 32, wherein said heat conductive material comprises aluminum.
34. The assembly of claim 31, wherein said holding means comprises:
a plurality of pairs of plates disposed in substantially parallel planes;
each pair of plates receiving and holding a plurality of objects therebetween which objects form a portion of the devices to be made in said casting process;
a support for holding said plates in substantially planar alignment while accommodating linear movement of said plates in a direction perpendicular to said planes; and
a spring biased retainer for holding said plates together to retain said objects while accommodating said linear movement to permit a device having a dimension exceeding the dimension of each of said objects to be removed from between a pair of said plates.
35. The assembly of claim 31, wherein at least one of said cavities of said form has at least one irregular side.
36. A sponge device, comprising:
a handle comprised of a stem coupled with a mandrel;
a cast sponge section that substantially surrounds said mandrel;
37. The device of claim 36, wherein said cast sponge section comprises cured PVA.
38. The device of claim 36, wherein said mandrel comprises a paddle with holes extending through the paddle to accommodate the flow of the cast sponge.

39. The device of claim 36, wherein said mandrel is off center relative to said sponge section to provide greater firmness to the sponge section on one side versus the opposite side.

40. The device of claim 36, wherein said mandrel includes an arm projecting from one side and extending beyond said cast sponge section.

41. The device of claim 40, wherein said arm is L-shaped.

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